

Mouse Peroxiredoxin 5 / PRDX5 Protein (His Tag)

Catalog Number: 50551-M07E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ACR1; AOEB166; B166; HEL-S-55; PLP; PMP20; PRDX6; prx-V; PRXV; SBB110; AOEB166; AOPP; Pmp20; Prdx6; PrxV

Protein Construction:

A DNA sequence encoding the mouse PRDX5 (mitochondrial) (P99029-1) (Met 49-Leu 210) was expressed, with a polyhistidine tag at the N-terminus.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to reduce H₂O₂. The specific activity is > 100 pmoles/min/μg.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse PRDX5 consisting of 173 amino acids and migrates as an approximately 18.5 kDa band in SDS-PAGE under reducing conditions as predicted.

Formulation:

Lyophilized from sterile PBS, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

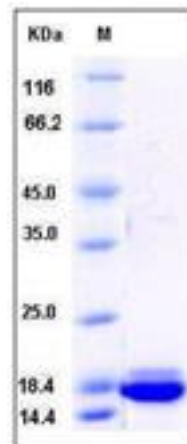
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Peroxiredoxin-5, also known as Alu corepressor 1, Antioxidant enzyme B166, Liver tissue 2D-page spot 71B, Peroxisomal antioxidant enzyme, Thioredoxin peroxidase PMP20, Thioredoxin reductase, PRDX5 and ACR1, is cytoplasm protein which belongs to the peroxiredoxin 2 family. Peroxiredoxin-5 / PRDX5 reduces hydrogen peroxide and alkyl hydroperoxides with reducing equivalents provided through the thioredoxin system. Peroxiredoxin-5 / PRDX5 is involved in intracellular redox signaling. The Peroxiredoxins / Prx are a family of 25 kDa peroxidases that can reduce H₂O₂ using an electron from thioredoxin (Trx) or other substances. The mammalian Peroxiredoxins / Prx family is divided into six groups (PRDX1, PRDX2, PRDX3, PRDX4, PRDX5, PRDX6) on the basis of homology of amino acid sequences. They are located in the cytosol and play a role in the cell signaling system. All six mammalian peroxiredoxins are expressed in the lung. Peroxiredoxins / Prx is overexpressed in breast cancer tissues to a great extent suggesting that Peroxiredoxins / Prx has a proliferative effect and may be related to cancer development or progression.

References

- 1.Seo M.S., et al., 2000, J. Biol. Chem. 275: 20346-54.
- 2.Declercq J.-P., et al., 2001, J. Mol. Biol. 311:751-9.
- 3.Noh,D.Y. et al., 2001, Anticancer Res. 21 (3B): 2085-90.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>